

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKL NO.
M122-1398

SERIAL NO.
09/536,037

APPLICANT
Weimin (Michael) Li et al

FILING DATE
March 27, 2000

GROUP
2822

LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary) #13

U.S. PATENT DOCUMENTS

	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA 4,474,975	10-2-1984	Clemons et al.	556	410	
	AB 5,962,581	10-5-1999	Hayase et al.	524	588	
	AC 4,805,883	2-21-1989	Magdo et al.	216	40	
	AD 5,874,367	2-23-1999	Dobson	438	787	
	AE 5,858,880	1-12-1999	Dobson et al.	438	758	
	AF 5,219,813	6-15-1993	Fabry et al.	438	758	
	AG 5,270,287	12-14-1993	Quellat	438	597	
	AH 5,541,445	7-30-1996	Quellat	438	761	
	AI 5,022,404	2-8-2000	Ettlinger et al.	106	404	
	AJ 5,709,741	1-20-1998	Akamatsu et al.	106	287.11	
	AK 4,648,904	3-10-1987	DePasquale et al.	106	2	
	AL 4,158,717	6-19-1979	Nelson	428	446	
	AM 5,667,015	9-18-1997	Harestad et al.	166	383	
	AN 5,661,093	8-28-1997	Ravi et al.	438	763	
	AO 5,536,857	7-16-1996	Narula et al.	556	10	
	AP 4,695,859	9-22-1987	Guha et al.	257	64	
	AQ 5,061,509	10-29-1991	Naito et al.	427	497	
	AR 4,600,671	7-15-1986	Saitoh et al.	430	57.5	
	AS 5,753,320	5-19-1998	Mikoshiba et al.	427	572	
	AT 5,356,515	10-18-1994	Tahara et al.	438	715	
	AU 4,954,867	9-4-1990	Hosaka	257	639	
	AV 5,674,358	10-7-1997	Nagayama	438	694	
	AW 5,731,242	3-24-1998	Parat et al.	438	586	
TMT	AX 5,741,721	4-21-1998	Stevens	438	396	

EXAMINER
T. M. Thomas

DATE CONSIDERED
12-07-01

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKL .0
M122-1398SERIAL NO.
09/536,037

LIST OF ART CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT
Weimin (Michael) Li et alFILING DATE
March 27, 2000GROUP
2822

U.S. PATENT DOCUMENTS

Examination Status	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
TMT	AA 5,034,348	7-23-1991	Harlewick et al.	438	453	
	AB 5,472,827	12-5-1995	Ogawa et al.	430	315	
	AC 5,472,828	12-5-1995	Ogawa	430	325	
	AD 5,641,607	6-24-1997	Ogawa et al.	430	372.1	
	AE 5,648,202	7-15-1997	Ogawa et al.	430	325	
	AF 5,871,297	9-23-1997	Ogawa et al. Koppe et al.	382	293	
	AG 5,877,111	10-14-1997	Ogawa	430	313	
	AH 5,898,352	12-16-1997	Ogawa et al.	430	14	
	AI 5,931,321	11-3-1998	Nagayama	257	412	
	AJ 5,591,566	1-7-1997	Ogawa	430	325	
	AK 6,008,124	12-28-1999	Sakiguchi et al.	438	653	
	AL 5,340,621	8-23-1994	Matsumoto et al.	427	571	
	AM 5,600,165	2-4-1997	Tsukamoto et al.	257	323	
	AN 5,872,385	2-16-1999	Taft et al.	257	437	
	AO 5,960,289	9-28-1999	Tsui et al.	438	275	
	AP 5,868,324	10-18-1998	Cheung et al.	204	192.28	
	AQ 6,020,243	2-1-2000	Wallace et al.	438	287	
	AR 5,441,787	8-16-1995	Hogan et al.	428	209	
	AS 5,710,067	1-20-1998	Foote et al.	438	636	
	AT 5,759,756	6-2-1998	Park et al.	430	512	
	AU 5,838,052	11-17-1998	McTeer	257	437	
	AV 5,883,011	3-16-1999	Lin et al.	438	747	
	AW 6,140,151	10-31-2000	Akram	438	113	
TMT	AX 5,314,724	5-24-1994	Tsukune et al.	427	489	

EXAMINER

T.M. Thomas

DATE CONSIDERED

12-07-01

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DCKL .O. M122-1398		SERIAL NO. 09/536,037	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)					
U.S. PATENT DOCUMENTS					
INITIALS TMT	Document Number	Date	Name	Class	Subclass
	AA	5,376,591	12-27-1994	Maeda et al.	438 761
	AB	5,817,549	10-6-1998	Yamazaki et al.	438 166
	AC	5,001,741	12-14-1999	Alers	438 706
	AD	6,072,227	6-6-2000	Yau et al.	257 642
TMT	AE	5,788,039	7-28-1998	Brouquet	437 578
	AF				
	AG				
	AH				
	AI				
	AJ				
	AK				
	AL				
	AM				
	AN				
	AO				
	AP				
	AQ				
	AR				
	AS				
	AT				
	AU				
	AV				
	AW				
	AX				
EXAMINER T. M. Thomas			DATE CONSIDERED 12-07-01		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DCKA .O. M122-1398		SERIAL NO. 09/538,037		
		APPLICANT Weimin (Michael) Li et al.				
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)		FILING DATE March 27, 2000		GROUP 2822		
FOREIGN PATENT DOCUMENTS						
Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
TMT	AA 06067019A	9/1999	Japan (Glass)(Abstract)			
	AB 6-244172	9/1994	Japan			
	AC 593,727	10/1947	GB			
	AD 5-263255	10/1993	Japan			
	AE 0 471 185 A2	7/10/91	EPO			
	AF 0 588 087 A2	8/18/93	EPO			
	AG 0 588 087 A3	8/18/93	EPO			
	AH 09055351	25/2/97	Japan			
	AI 0 778 496 A2	05/12/96	EPO			
	AJ 20029	US99	Search Report			
	AK 20030	US99	Search Report			
TMT	AL 0 942330	9-99	EPO (Joubert)			
	AM					
	AN					
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AW					
EXAMINER T. M. Thomas			DATE CONSIDERED 12-07-01			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKÉ .O. M122-1398		SERIAL NO. 09/536,037	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Welmin (Michael) Li et al.			
				FILING DATE March 27, 2000		GROUP 2822	
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
Examiner's Initials		Name					
TMT		AA	TEXT: Jenkins, F. et al., "Fundamentals of Optics", Properties of Light, pp. 9-10. (No date)				
		AB	TEXT: Wolf, S. et al., "Silicon Processing for the VLSI Era", Vol. 1, pp. 437-441. (No date)				
		AC	D.R. McKenzie et al., "New Technology for PACVD", Surface and Coatings Technology, 82 (1996), pp. 326-333.				
		AD	S. McClatchie et al., "Low Dielectric Constant Flowfill® Technology For IMD Applications", undated; 7 pages				
		AE	K. Beckmann et al., "Sub-micron Gap Fill and In-Situ Planarisation using Flowfill® Technology", October 1995; pp. 1-7				
		AF	A. Kiermasz et al., "Planarization for Sub-Micron Devices Utilising a New Chemistry", ElectroTech, February 1995; 2 pages				
		AG	IBM Technical Disclosure Bulletin "Low-Temperature Deposition of SiO ₂ , Si ₃ N ₄ or SiO ₂ -Si ₃ N ₄ ", Vol. 28, No. 9, p. 4170, Feb. 1986.				
		AH	ARTICLE: Bencher, C. et al., "Dielectric antireflective coatings for DUV lithography", Solid State Technology (March 1997), pp.109-114.				
		AI	Noboru Shibata, "Plasma-Chemical Vapor-Deposited Silicon Oxide/Silicon Oxynitride Double-Layer Antireflective Coating for Solar Cells", Japanese Journal of Applied Physics, Vol. 30, No. 5, May 1991, pp. 997-1001.				
		AJ	Ralls, Kenneth M., "Introduction to Materials Science and Engineering", John Wiley & Sons, © 1976, pp. 312-313				
		AK	Ravi K. Laxman, "Synthesizing Low-k CVD Materials for Fab Use", Semiconductor International, Nov. 2000, 10 pps.				
		AL	Anonymous, "New gas helps make faster IC's", Machine Design Cleveland, © Penton Media, Inc., November 4, 1999, pp. 118				
		AM	Lobada et al., "Using Trimethylsilane to Improve Safety Throughput and Versatility in PECVD Processes", 4th International Symposium on Silicon Nitride and Silicon Dioxide Thin Insulating Films, The Electrochemical Society, Abstract No. 358, p. 454, May 1997.				
		AN	ARTICLE: Dammel, R. R. et al., "Dependence of Optical Constants of AZ® BARLI™ Bottom Coating on Back Conditions", SPIE Vol. 3049 (1997), pp. 963-973.				
		AO	TEXT: Heavens, O. S., "Optical Properties of Thin Solid Films", pp. 48-49.				
		AP	Withmell, R. et al., "Matrix Reactions of Methylsilanes and Oxygen Atoms", Phys. Chem 1988, pp. 594-602.				
		AQ	Weidman, T. et al., "New photodefinable glass etch masks for entirely dry photolithography: Plasma deposited organosilicon hydride polymers", Appl. Phys. Lett 1-25-93, pp. 372-374.				
		AR	Weidman, et al., "All Dry Lithography: Applications of Plasma Polymerized Methylsilane as a Single Layer Resist and Silicon Dioxide Precursor", Journal of Photopolymer Science and Technology, V. 8, #4, 1995, pp. 679-686.				
		AS	Joubert et al., "Application of Plasma Polymerized Methylsilane in an all dry resist process for 193 and 248 nm Lithography", Microelectronic Engineering 30 (1996), pp. 275-278.				
		AT	Joshi, A.M. et al., "Plasma Deposited Organosilicon Hydride Network Polymers as Versatile Resists for Entirely Dry Mid-Deep UV Photolithography", SPIE Vol. 1925, pp. 709-720.				
		AU	Matsura, M. et al., "Highly Reliable Self-Planarizing Low-k Intermetal Dielectric for Sub-quarter Micron Interconnects", IEEE 1997, pp. 785-788.				
TMT		AV	Horio, O. et al., "Kinetics and Mechanism of the Reactions of ...", J. Phys. Chem 1991, J393-4400.				
EXAMINER T. M. Thomas				DATE CONSIDERED 12-07-01			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							